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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,441	09/08/2003	Simon Alan Jones	G&C 30566.256-US-U1	1424

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EXAMINER

LAY, MICHELLE K

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/657,441	Applicant(s) JONES ET AL.	
	Examiner Michelle K. Lay	Art Unit 2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's arguments filed 06 May 2005 have been fully considered but they are not persuasive. Please see "Response to Arguments" for further explanation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims **1 – 3, 7 – 9, 13 – 15, and 19 – 21** are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,444,836 to Hollingsworth et al.

In regards to claims **1, 7, 13, 19 – 21** –

Hollingsworth et al. discloses an apparatus and method for creating and applying flexible, user defined rules for placement of graphical objects in a computer aided drafting (CAD) application. The placement subsystem (100) and its relationship to other subsystems are shown in Fig. 1. Placement subsystem (100) communicates with database subsystem (102) over bidirectional communication link (110) to retrieve information and attributes associated with graphical objects to be placed on a graphical image. Database subsystem (102) may represent any database means capable of storing and retrieving information (claim **13, 21**: storage medium readable by computer).

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Placement subsystem (100) manipulates the information retrieved from database subsystem (102) by applying user-defined rules to determine the proper placement of the graphical objects on the graphical image (claims **1.c.i.**, **1.c.ii.**, **7.b.iii.1.**, **7.b.iii.2.**, **13.c.i.**, **13.c.ii.**, **19 – 21**) [column 4, lines 64 – 66]. Placement subsystem (100) then communicates with drawing subsystem (104) over communication link (112) to instruct drawing subsystem (104) where to draw each graphical object on the graphical image [column 4, lines 66 – 68]. Drawing subsystem (104) transforms information to graphical output device (106) over communication link (114) to create the desired graphical image (claims **1.a.**, **7.b.i.**, **13.a.**, **19 – 21**). The resulting graphical image constructed by graphical output device (106) shows the graphical objects placed on the graphical image according to the user defined rules manipulated by placement subsystem (100) [column 5, lines 1 – 8]. As shown in Fig. 2, these subsystems (100) (102) (104) may coexist on a common computer system (210) (claims **7**, **20**: a computer having memory) [column 5, line 14]. The rule-processing component (200) represents the rule application (claim **7.b.**) means for automatically reading and applying the placement rules defined by the user of the rule definition means [column 5, lines 58 – 61]. Graphical objects may be lines, symbols, geometric shapes, text, or other constructs which are to be placed on the graphical image (claims **1.b.**, **7.b.ii.**, **13.b.**) [column 1, lines 24 – 26].

In regards to claims **2**, **8**, **14 –**

Fig. 2 depicts additional detail of the components within placement subsystem (100). A user of placement subsystem (100) uses rule creation and modification component (202) to create a textual file specifying the user defined placement rules to be applied in placement of all graphical objects (claims, **2, 8, 14**). The rule specification file contains a structured record for each set of rules to be applied to a particular class of graphical objects being placed [column 5, lines 32 – 39]. As shown in Fig. 2, the placement subsystem (100) exists on a common computer system (210) (claim **8**) [column 5, line 14] and includes database subsystem (102) representing any database means capable of storing and retrieving information (claim **14**).

In regards to claims **3, 9, 15** –

The rule-processing component (200) of Fig. 2 reads the rule specification file from storage device (204) to initiate the creation of graphical image on graphical output device (106). Each structured record read from storage device (204) includes a database query element to be applied by rule processing component (200) to database subsystem (102) [column 5, lines 61 – 68]. The application of the query element to database subsystem (102) results in retrieval of zero or more information records. Each information record retrieved by the application of the query element to database subsystem (102) contains information regarding nominal placement of a graphical object to be placed on the graphical image (claims **3, 9, 15**) [column 6, lines 1 – 7]. As shown in Fig. 2, these subsystems (100) (102) (104) may coexist on a common computer system (210) (claim **9**) [column 5, line 14] and includes database subsystem

(102) representing any database means capable of storing and retrieving information
(claim 15).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **4, 10, 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,444,836 to Hollingsworth et al. in view of US Patent No. 6,049,340 to Matsushita et al.

Hollingsworth et al. teaches the limitations of claims **4, 10, 16** with the exception of disclosing the object as a door. However, Matsushita et al. discloses a computer aided design (CAD) system in which the user selecting generates graphic drawings and placing figures representing objects such as walls and doors on a screen.

In combination with the rationale of claims **1, 7, and 13** respectfully, Hollingsworth et al. further teaches the ability to place text on the graphical image. The text blocks specify the TS text string drawing keyword statement to invoke the text drawing features of placement subsystem (100) in drawing the placeable text block on the graphical image (claim 4: door number) [column 21, lines 17 – 23]. Furthermore, TS is a high-level keyword statement used to specify that a text string is to be drawn to represent the placeable object on the graphical image [Hollingsworth et al.: column 16, lines 45 – 47].

This keyword is part of the user-defined rules. Thusly, by defining rules for a text string to be drawn on the object provides a means for automatically labeling a graphical object with text, such as with a number as claimed.

As shown in Fig. 2, the CAD system of Matsushita et al. is a multi-window CAD system (claim 10: computer system) and runs a CAD program (claim 16: executable instructions) that is used to generate graphic drawings of buildings [column 3, lines 63 – 65]. Referring to Fig. 1, a command-selecting unit (1) selects a command to place a figure at a desired position with desired shape [column 3, lines 40 – 41]. This figure may be a door as shown in Figs. 7, 8, 9, and 10 (claims: 4, 10, 16: object as a door) [column 8, line 15].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the generation of graphic drawings of buildings of Matsushita et al. with the automatic placement of Hollingsworth et al. with Matsushita et al. because the automatic placement reduces the burden on the user of manually applying complex drafting rules in creating or modifying graphical images [Hollingsworth et al.: column 3, lines 64 – 66] within computer aided design systems. As Hollingsworth et al. determines, graphical objects may be lines, symbols, geometric shapes, text, or other constructs which are to be placed on the graphical image [Hollingsworth et al.: column 1, lines 24 – 26]. Thus, doors may be included within these graphical objects.

3. Claims **5, 6, 11, 12, 17, and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,444,836 to Hollingsworth et al. in view of US Patent No. 6,025,849 to Felser et al.

Hollingsworth et al. teaches the limitations of claims **5, 6, 11, 12, 17, and 18** except disclosing the use of grips on the object for positioning and sizing. However, Felser et al. teaches a flexible system within a computer aided design (CAD) system that can be applied to shape objects as well as any other object that has the ability to provide type information [Felser et al.: column 3, lines 11 – 13].

In combination with the rationale of claims **1, 7, and 13** respectfully, Hollingsworth et al. discloses an apparatus and method for creating and applying flexible, user defined rules for placement of graphical objects in a computer aided drafting (CAD) application.

Felser et al. discloses a software system (claims **17, 18**: executable instructions) that enables the creation and maintenance of relationships between properties of objects, wherein the objects can be authored by the user [column 2, lines 40 – 45]. Referring to Fig. 1, the software system is typically implemented using a personal computer (100) (claim **11, 12**: computer with memory), which includes a processor (102), random access memory (RAM) (104), data storage devices (106), data communications devices (108), monitor (110), mouse pointing device (112) and keyboard (114). Fig. 2 of Felser et al. is a block diagram that illustrates the components of an object (200) (also referred to as, intelligent shape object). It is comprised of a number of different elements, one being zero or more handles (210) (claims **5, 11, 17**: location grip) that provide direct manipulation of the shape object (200), thereby

allowing the user to stretch or otherwise resize the shape object (200) (claims 6, 12, 18: modifying the object) [column 4, lines 21 – 37].

Therefore, it would have been obvious to one at the time the invention was made to combine the invention of Hollingsworth et al. with the handles and resizing method of Felser et al. to allow direct manipulation of the object and to utilize the CAD program to its fullest extent [Felser et al.: column 1, lines 57 – 62].

Response to Arguments

Applicant's arguments filed 06 May 2005 have been fully considered but they are not persuasive.

In regards to Applicant's argument (1) –

As taught by Hollingsworth et al., the placement rules are used to modify the nominal placement of a graphical object to prevent undesired over-plotting of graphical objects on the graphical image [Hollingsworth et al.: column 6, lines 24 – 28]. Thus the rules for placement, i.e. location, of the graphical object take into account other objects on the screen to prevent over-plotting, i.e. placing graphical objects on top of each other when unintended.

In regards to Applicant's argument (2) –

As taught by Hollingsworth et al., the user defined rules for placement of graphical objects in a computer aided drafting (CAD) application, provides an automatic means

for the application to properly place the graphical object on the screen. The placement of the objects coincides with a defined location depending of the rules associated with the graphical object.

In regards to Applicant's argument (3) –

As taught by Hollingsworth et al., placeable objects are placed at a point on the graphical image. Regardless of the graphic symbol used to represent the graphical object, the objects are placed so that a base point associated with the object is on the placement point of the graphical image. The purpose of the placement rules is to adjust the placement point for a placeable object so that the symbol will be positioned properly with respect to surrounding symbols on the graphical image. The rules are defined by the user of placement subsystem (100) to meet the specific needs of the user and the applicant [column 11, lines 1 – 13]. Each placeable object's first level keyword statement includes one or more placement rule keyword statements to determine the user's preferred placement of the corresponding class of graphical objects retrieved from database subsystem (102) [column 11, lines 14 – 17]. Thus, these placement rule keyword statements give a value to the graphical object it is connected with to provide a preferred placement.

In regards to Applicant's arguments on claims 4, 10, 16 –

As taught by Hollingsworth et al., TS is a high-level keyword statement used to specify that a text string is to be drawn to represent the placeable object on the

graphical image [Hollingsworth et al.: column 16, lines 45 – 47]. This keyword is part of the user-defined rules. Thusly, by defining rules for a text string to be drawn on the object provides a means for automatically labeling a graphical object with text, such as with a number as claimed. Furthermore, Hollingsworth et al. teaches that the graphical objects may be lines, symbols, geometric shapes, text, or other constructs which are to be placed on the graphical image [Hollingsworth et al.: column 1, lines 24 – 26].

As shown in Fig. 2 of Matsushita et al., the multi-window CAD system is used to generate graphic drawings of buildings [column 3, lines 63 – 65] where a command-selecting unit (1) selects a command to place a figure at a desired position with desired shape [column 3, lines 40 – 41]. This figure may be a door as shown in Figs. 7, 8, 9, and 10 [column 8, line 15].

Thus it would have been obvious to one of ordinary skill in the art for the graphical objects of the CAD system of Hollingsworth et al. where the graphical objects may be lines, symbols, geometric shapes, text, or other constructs which are to be placed on the graphical image [Hollingsworth et al.: column 1, lines 24 – 26], to be a door, as taught by Matsushita et al. Furthermore, it would have been obvious to automatically label the doors via the user-defined rules of the text string of Hollingsworth et al. to distinguish the doors when multiple doors are placed on the screen.

In regards to Applicant's arguments on claims **5, 6, 11, 12, 17, 18** –

As taught by Hollingsworth et al., placeable objects are placed at a point on the graphical image. Regardless of the graphic symbol used to represent the graphical

object, the objects are placed so that a base point associated with the object is on the placement point of the graphical image (claims 5, 6, 11, 12, 17, 18: location grip). The purpose of the placement rules is to adjust the placement point for a placeable object so that the symbol will be positioned properly with respect to surrounding symbols on the graphical image. The rules are defined by the user of placement subsystem (100) to meet the specific needs of the user and the applicant [column 11, lines 1 – 13]. Each placeable object's first level keyword statement includes one or more placement rule keyword statements to determine the user's preferred placement of the corresponding class of graphical objects retrieved from database subsystem (102) [column 11, lines 14 – 17]. Thus, these placement rule keyword statements give a value to the graphical object it is connected with to provide a preferred placement. Graphical objects may be lines, symbols, geometric shapes, text, or other constructs which are to be placed on the graphical image [Hollingsworth et al.: column 1, lines 24 – 26].

As combined with Felser et al. discloses a software system that enables the creation and maintenance of relationships between properties of objects, wherein the objects can be authored by the user [column 2, lines 40 – 45]. Fig. 2 of Felser et al. is a block diagram that illustrates the components of an object (200) (also referred to as, intelligent shape object). It is comprised of a number of different elements, one being zero or more handles (210) that provide direct manipulation of the shape object (200), thereby allowing the user to stretch or otherwise resize the shape object (200) [Felser et al.: column 4, lines 21 – 37].

Thus it would have been obvious to one of ordinary skill in the art for the creation and maintenance of relationships between properties of objects of Felser et al. via the zero or more handles to be incorporated in the graphic symbols of Hollingsworth used to represent the graphical objects. These graphical objects are the grips as claimed. The objects are placed so that a base point associated with the object is on the placement point of the graphical image. The purpose of the placement rules of Hollingsworth, and additionally the relationships between properties of objects of Felser et al, is to adjust the placement point for a placeable object so that the symbol will be positioned properly with respect to surrounding symbols on the graphical image.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle K. Lay whose telephone number is (571) 272-7661. The examiner can normally be reached on Monday - Friday, 7:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michelle K. Lay
Examiner
Art Unit 2672

06.30.2005 mkl



7/6/05

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